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PLANT IMMIGRANTS

Descriptive notes furnished mainly by Agricultural Explorers and Foreign Correspondents relative to the more important introduced plants which have arrived during the month at the Office of Foreign Seed and Plant Introduction of the Bureau of Plant Industry of the Department of Agriculture. These descriptions are revised and published later in the Inventory of Plants Imported.

No. 102. October 1914.

Genera Represented in This Number.

Acacia	39355	Gliricidia	39331
Achradelpha	39357	Kokia	39354
Annona	39352	Lycopersicon	39362
	39358-359	Manihot	39337-340
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Dolichos	39335	Tibouchina	39333

Plates: Crataegus pinnatifida
Annona
Annona salzmanni

Applications for material listed in these multigraphed sheets may be made at any time to this Office. As they are received they are placed on file, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it, as well as to others selected because of their special fitness to experiment with the particular plants imported. Do not wait for the Autumn Catalogue.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.

Permission to publish on application only.

E R R A T U M

Through careless proof reading of page 807, Plant Immigrants, No. 101, September 1914, certain essential words were omitted from the description of *Madhuca indica*. Sixth line, after "*B. malabarica*" insert "the edible flowers and the oil-yielding" before "seeds".

Acacia horrida. (L.) Willd. (Mimosaceae.) 39355. Seeds of the doorn-boom or thorn-tree of South Africa, presented by Mr. J. Burtt-Davy, Agricultural Supply Association. "A glabrous flat-topped tree, usually spreading more than its height. The most widely distributed of all South African trees, extending from Capetown through the Karroo to Damaraland, Orange River Colony, Transvaal, Natal, and Delagoa Bay. Its range is however curiously affected in places, being absent, possibly through frost, in several large flat alluvial localities where single trees have grown to perfection. It ascends to about 4000 feet altitude from the eastern coast and considerably further from the western, but is absent from the higher parts of the Drakenburg, and seldom mixes with Proteaceae, thus indicating that soil as well as climate controls its distribution. Occasionally it forms a fine spreading tree 30-40 feet in height, and with stem 2 feet in diameter, much more frequently it is a small umbrella-shaped tree of 10 to 15 feet in height with a clear bole only to 6 or 8 feet, and the constant regrowth dots or covers the veld with all smaller sizes in suitable localities where it is not kept down. Although usually evergreen, yet in dry cold carroid localities it is often leafless for a considerable part of the year, and in some localities it is continuously leafless for years in succession, and is then enormously spiny and colors the veld white instead of green. In most places its use is principally for fuel, for which purpose there is no better wood; but as this does not, except near the towns, use up all that grows, its increase in remote localities is a difficult matter to check. Fire burns the grass under mature thorn-trees without doing them much damage, and as the seeds germinate most readily after being soaked in boiling water or half roasted, those grass fires aid rather than retard regrowth. Chopping off trees at the ground only induces an abundant coppice growth, but it is found that by chopping them off two feet above ground during summer, the coppice growth is more easily controlled, and the stump often dies. Native locations usually become free of thorn-tree eventually, partly through the unrestricted native demand for fuel, kraalwood, etc., and partly through the browsing of goats, which of all artificial methods is the surest means of keeping the tree down. A small brown scale-insect, however, (*Prosopophora prosopidis*, var. *mimosae*) is found to kill the trees wholesale on the occasions of its visits in the Bedford district. During very dry winters it is not an uncommon practice to fell a few leafy thorn-trees daily as a green bite for stock; during summer the shade of the spreading tree is sought after by cattle and sheep; young plants are always browsed, and when ob-

tainable the pods are relished by goats; and for scenic effect there is perhaps no prettier tree, growing as it often does on a flat rocky subsoil which will carry no other tree. In alluvial soil it responds freely and gives better growth, on hot rocky banks it is common, but it is never found in high dense forest. Bark rough, thick, dark; formerly much used locally in the tanning of leather, and even now, at about half the price per ton as compared with black wattle, it pays to employ it for local use, but not for export, as the percentage of tannin for the bulk is too low.

"The doorn-boom is the host of an innumerable lot of pests, being often cleared of foliage by caterpillars of several large moths, and by bagworms; its timber is often bored by *Apate dorsalis* and *Chrysobothris dorsata*; certain ants occasionally inhabit the thorns and induce a most thorny development, strange gall abortions or malformations of pods are caused by a fungus; another fungus *OEcidium ornamentale* makes artistic floriated curls of the young twigs; and Loranthus and mistletoe are frequent parasites.

"Doorn-boom makes a strong rough hedge if soaked seed is sown in line and kept watered till germination has taken place. It is also useful for sowing in beds of intermittent rivers with a view to arrest silt during future floods. It suffers severely during soft snowstorms, the horizontal branches and foliage breaking under a heavy weight of snow." (Sim, Forest Flora of Cape Colony.)

Achradelpha mammosa (L.) Cook. (Sapotaceae.) 39357. Seeds of the sapote presented by the Costa Rican National Museum, San Jose. "The sapote has an open crown of large, lanceolate, coarsely-veined, deciduous leaves, and fruit with yellow flesh and a firmer and more uniform texture (than the sapodilla), not crisp like the flesh of an apple, but more like that of a cooked carrot or squash. The triangular-fusiform seeds of the sapote are very large and thick and have the whole inner face covered by an enormous hilum. The sapote is of no commercial importance, though the fruit is used extensively for food by the native populations of Central American regions and the West Indies. It ascends into the plateau regions of Central America." (Adapted from O. F. Cook, Nomenclature of the sapote and the sapodilla, Cont. Nat. Herb., vol. 16, 1913.)

Annona cherimola Miller. (Annonaceae.) 39352, 39359. Seeds of the chirimoya from Bogota, Colombia, presented by Capt. H. R. Lemly, and by Mr. Robert Ancizar of the Colombian Legation. "The principal fruit cultivated by the aboriginal inhabitants of western South America. Endemic in the Andes, and subtropical rather than tropical in its

natural habitat. Fruit with an abundance of slightly acidulous sweet juicy pulp, with a flavor somewhat like that of a pineapple. Recommended for planting in southern California in the foot-hills near the coast." (W. E. Safford.)

Annona purpurea Moç. & Sesse. (Annonaceae.) 39358. Seeds of a soncoya from San Jose, Costa Rica, presented by the Costa Rican National Museum. "This species has large aromatic fruit, velvety on the outside with raised hooked tubercles, yellow aromatic pulp, which is edible when ripe, but said to be unwholesome if eaten to excess. A medium-sized forest tree ranging from Mexico to Panama and Venezuela." (W. E. Safford.)

Atalantia monophylla DC. (Rutaceae.) 39330. Seeds from the Royal Botanic Garden, Calcutta. "A large shrub or small tree, native to India, Ceylon, Burma, Siam, and Indo-China, usually spiny; leaves glabrous, or sometimes pubescent, 1 to 3 inches long; petioles short, slightly or not at all winged; flowers borne in axillary panicles; calyx irregularly lobed, split to the base on one side, petals usually four, stamens eight, the filaments connate and forming a completely closed tube; ovary 3-5 celled; fruit from one-half to three-fourths inch in diameter, with a skin like a lime, globose, with several cells (generally 4), each usually containing one seed and filled with pulp-vesicles, making the fruit much like a miniature orange. This tree, still little known outside of India and Ceylon, is the type of the genus Atalantia, and one of the promising species for trial as a stock on which to graft other citrus fruits, and also for use in breeding new types of citrus fruits. The fruits yield an oil which in India is considered a valuable application in chronic rheumatism." (W. T. Swingle, in Bailey, Standard Cyclopedia of Horticulture.)

Diospyros nigricans Wallich. (Ebenaceae.) 39324. Seeds from Allahabad, India. Presented by Mr. William Bembower, Ewing Christian College. "A tree 50 feet high, with many lax cinereous, glabescent branches; young shoots and petioles minutely puberulous. Leaves oval-oblong, much acuminate at apex, somewhat narrowed at base, alternate, turning black when dry, firmly membraneous, glabrous except on midrib which is puberulous and depressed on the upper surface; lateral veins and net-veins delicate, not conspicuous above; 3-5 inches long by 1-1¾ inches wide; petioles one-tenth to one-seventh inch long. Male flowers in few (3-6)-flowered short axillary puberulous cymes, one-fourth to one-third inch long; bracts small, imbricated. Calyx

with scattered short ferruginous hairs outside, shortly 4-lobed. Corolla with few scattered short hairs outside, deeply (two-thirds) lobed, slender; lobes reflexed at apex. Stamens 32 in one case, very unequal, many minute, glabrous. Fruit glabrous, ovoid or globose, pointed at apex, about two-thirds inch long, 4-celled, 4-seeded, solitary. Fruiting calyx 4-partite, with scattered ferruginous hairs outside, nearly glabrous inside; with oval, flat, spreading or reflexed lobes, one-third inch long. Seeds oblong, two-fifths inch long; albumen not ruminated, embryo nearly as long as the albumen. Fruiting peduncles shortly hispid, one-fifth inch long, patent, unilateral, bearing 2 small bracts. From Khasia, East Bengal, and Silhet." (Hiern, Monograph of the Ebenaceae.) For breeding experiments and to test as a possible stock for the persimmon.

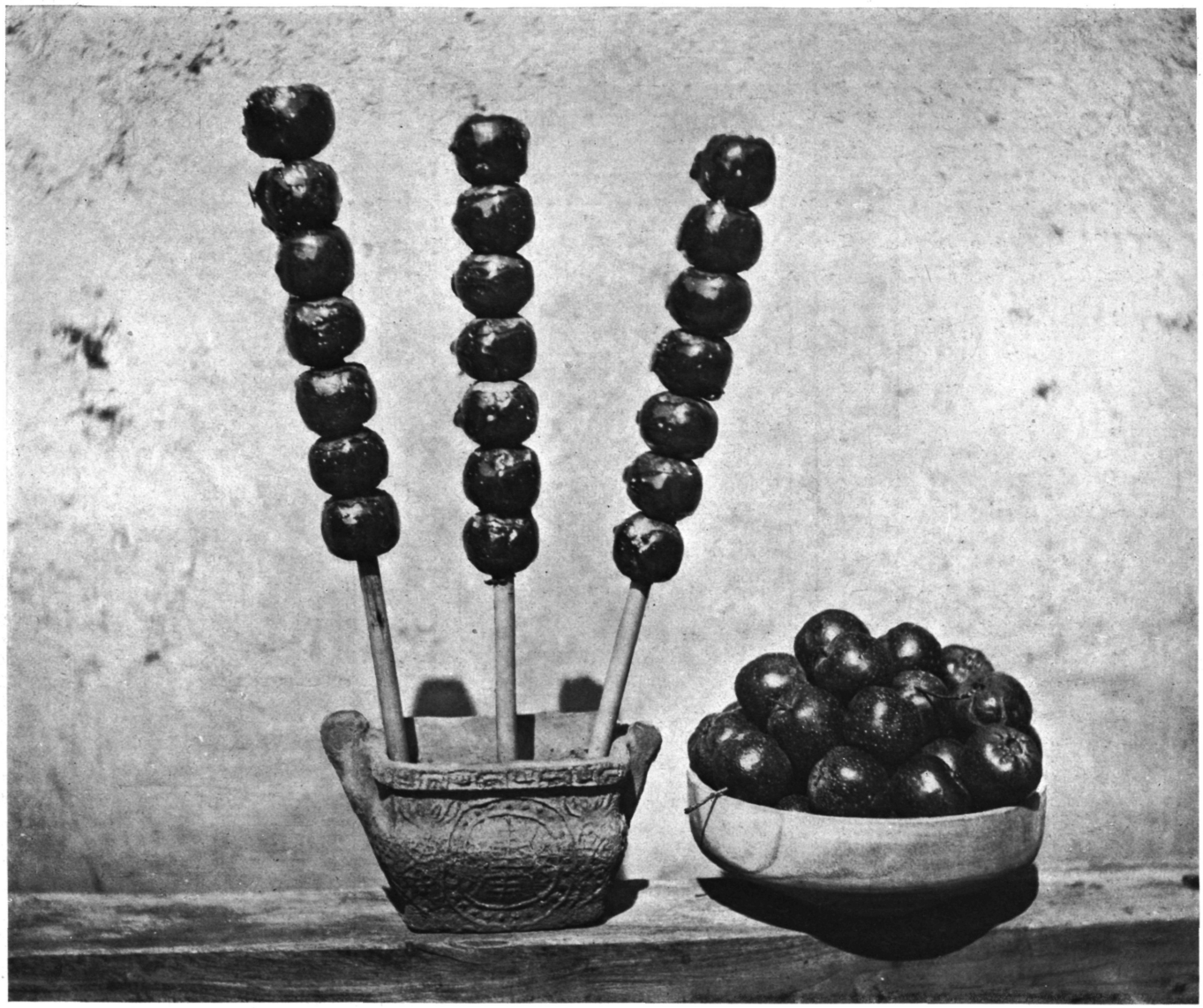
Dolichos hosei Craib. (Fabaceae.) 39335. Seeds of the Sarawak bean from Kuala Lumpur, Malay States. Presented by the Director, Department of Agriculture. "I have found a small creeping bean of the Vigna family which is indigenous to Sarawak, but as yet I have been unable to ascertain its name, and I think it is just possible that it has never been reported from Sarawak. This bean appears to fulfil all that is required (low-growing leguminous plant which can be dug into the soil and reproduce itself in time to check the growth of weeds) and grows readily from cuttings, but seeds are very difficult to procure. The flower is yellow and the leaf a rich light green; the roots do not penetrate the ground more than one inch; the plant forms a thick level mass about six inches thick on the ground, and it will grow on almost any soil, but for preference a light soil, and in six months after planting should prevent all washing if planted three feet apart. I have been planting this bean with rubber for three years and have now 200 acres planted with it, and it has proved itself in every way a success." (Hose, in Agricultural Bulletin of the Federated Malay States.)

Gliricidia sepium (Jacq.) Kunth. (Fabaceae.) 39331. Seeds of the "Madre de cacao" from Manila. Presented by Mr. D. LeRoy Topping, Bureau of the Treasury. "I used it for a house decoration and had stalks of it fully ten feet long that were a mass of bloom, and everybody exclaimed 'quite like a bit of Japan.' The plant is inclined to sprawl and if wanted purely for ornamental purposes it would be well to prune it." (Topping.)

Kokia drynarioides (Seem.) Lewton. (Malvaceae.) 39354. Seeds from Mahana, Molokai, Hawaii. Presented by Mr. Joseph F. Rock, Botanist, College of Hawaii. This very

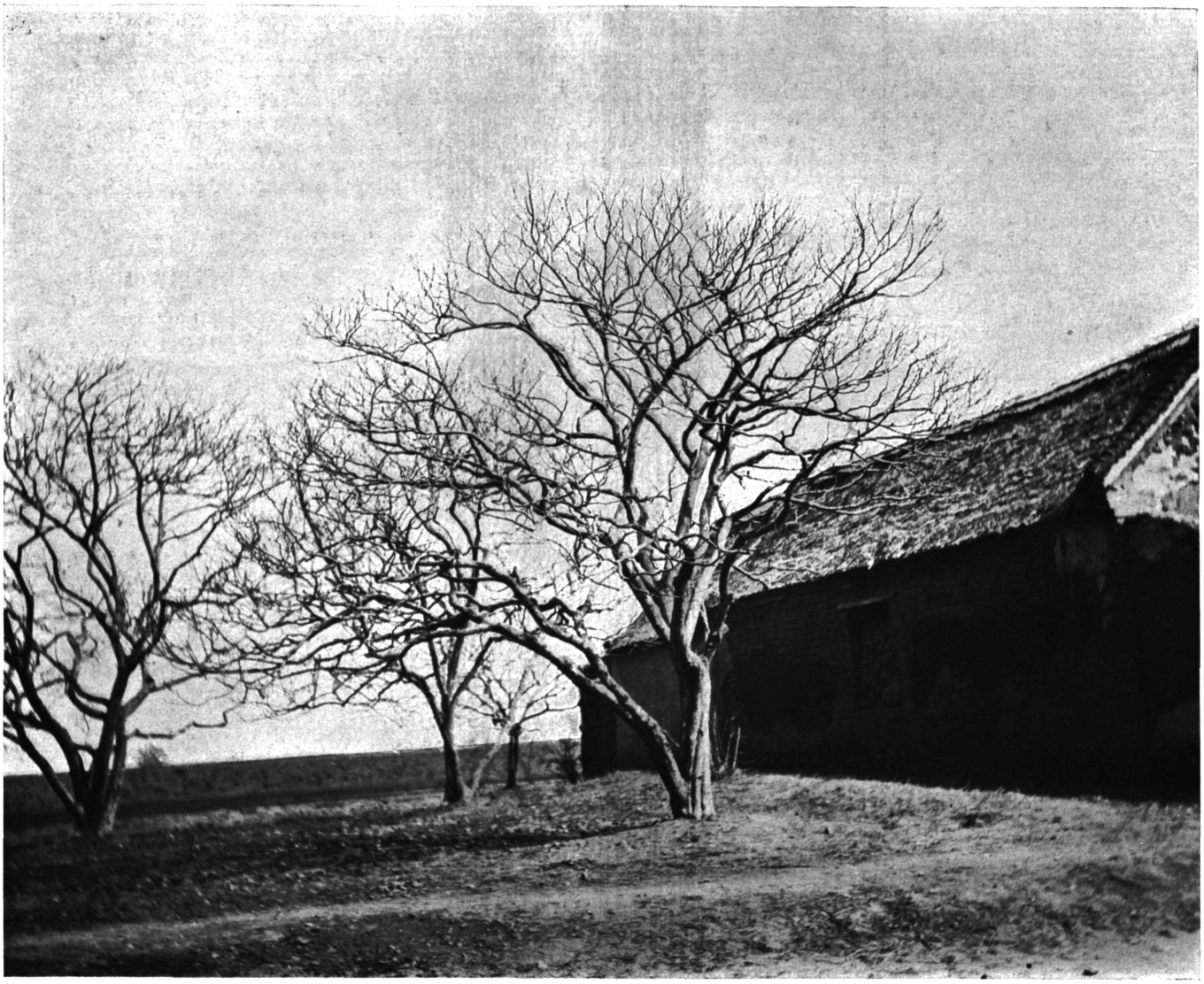
interesting relative of the cottons was supposed to be extinct, a single tree only remaining on the Molokai ranch where it occurred, but during the summer this tree supposed to be dead, revived and a single branch put forth leaves and flowers and produced a few seeds. These seeds were procured for this Office by Mr. Rock, and will be propagated for distribution for comparison with *Kokia Rockii*, already widely distributed to botanic gardens.

Lycopersicon esculentum Miller. (Solanaceae.) 39362. Seeds of a wild tomato from Funchal, Madeira. Presented by Mr. Charles H. Gable, Director, Junta Agricola. "The little wild tomato, *Lycopersicon vulgare cerasiforme* which is found in Madeira is considered by Lowe (Manual Flora of Madeira) as being the original stock from which our cultivated varieties have been derived. The same author states that besides 'growing spontaneously everywhere below 2000 feet above Funchal and other towns and villages in Madeira, it is completely naturalized on the central rocky crest of the North Deserta.' The North Deserta is an almost barren, uninhabitated island which lies about thirty miles north from Madeira. The selection which has taken place in the development of our cultivated varieties has not greatly changed the general appearance of the plant. The writer has not had the opportunity of making the careful botanical study necessary for the intelligent comparison of the characters presented by this wild tomato and our cultivated varieties, so there will be presented here only very brief observations of the conditions in which the plants grow. One of these plants was transplanted to a favorable part of the garden where the ground was rich, and had plenty of moisture. It made a tremendous growth, and at the end of three months, the plant was five feet in diameter and three and one-half feet high. Unfortunately the plant was destroyed, so that it was impossible to complete the record. Another plant was found where it could not have had a drop of water for at least three months. It probably had started to grow during the last few rains of the spring, but had completed its growth during the heat and drought of the summer. The particular spot where it grew was the hottest of the hottest part of the island. When it was found, the vine was apparently entirely dead, and lying flat on the ground; the leaves had dried up and dropped off, but the fruits every one of which was ripe, were clinging to the vine. It also seemed very strange to find that the fruits were all plump and firm, over three hundred of them on this one vine. The fruits are so very acid that they can be used for little else besides soups, and the natives do not use them a great deal even for that. Their keeping quality, however, may prove a desir-



CRATAEGUS PINNATIFIDA.

"Three sticks with Chinese Haw fruits, over which molten sugar has been poured and a wooden bowl with haw fruits." Little horticultural study seems to have been given to the question of edible fruited hawthorns although we have several large fruited forms adapted to cultivation over a wide range of territory. (Fairchild). Photo No. 981, by F. N. Meyer, Tai an fu, Shantung, China, March 20, 1914.



Chinese Haw Trees.

"A few grafted specimens of a large fruited variety of Chinese Haw tree (*Crataegus pinnatifida*) near a farmer's house showing off its typical, low-branching habit." The fact that the culture of this fruit is increasing in China and that the fruits themselves make a most excellent jelly warrant experimenters in giving it a preliminary trial in this country. (Fairchild.) Photo No. 983, by F. N. Meyer, near Tai an fu, Shantung, China March 29, 1914.

able characteristic in crossing with some of the highly developed varieties with the object of obtaining a good shipping tomato of pleasing flavor." (Gable.)

Manihot spp. (Euphorbiaceae.) 39337-340. Seeds of maniçoba rubber trees from Bahia, Brazil. Presented by Dr. V. A. Argollo Ferrao. "The good name that Jequiè rubber had was on account of being prepared in sheets and pure, because the *Manihot dichotoma* is tapped on the bark in 'porangos (tins)' like Hevea, so such rubber is clean from impurities and is easily prepared in thin sheets of nice appearance. *Manihot heptaphylla* (Rio Sao Francisco zone) and *Manihot piauhyensis* (State of Piauhy) being tapped near the roots, if not tapped carefully, give rubber that have large proportions of sand and clay. As to quality the Jequiè is the worst, for it has resins and less elasticity. Growers who planted *M. dichotoma* succeeded badly because the growth of the trees is extraordinarily variable. Seedlings from the same tree show an extraordinary variability of leaves and growth. *M. dichotoma* requires at least six years as a rule before tapping. The best variety for plantations is *M. piauhyensis*, for it gives the best rubber, and can be tapped at three years (even at two under good conditions.) With low prices of maniçoba rubber, maniçoba can only give profits if labor is very cheap, not exceeding thirty cents per day. Maniçobas will not stand frosts (I have seen some severely injured in Sao Paulo by slight frosts in coffee districts.) Maniçoba requires a rainy season in summer. The *M. heptaphylla* and *M. dichotoma* are found in parts of the state of Bahia on the other side of the chain of mountains that divide the state in two climates. Between mountains and sea, rains occur during winter, and on the other side, from mountains to Rio Sao Francisco rainfall is in summer. Maniçoba grows in the second zone if planted but does not give much rubber nor good quality, as Villa Nova plantations show, although trees have the best appearance. (Villa Nova is on the mountain that divides the climatic zones of the states. In mountains you have rains in summer and 'neblines' (fog rain) in winter). In the maniçoba districts there are heavy rains during summer for four to six months, such rains may last for ten days, day and night. There are no rains during the dry season and from time to time, about once in ten years, the summer rains fall. In our state people who have maniçoba forest or plantations, are investing in cotton because the low price of rubber does not give enough profits to pay for tapping trees. Maniçoba will not stand stagnant water." (Argollo Ferrao.)

Onobrychis vulgaris Hill. (Fabaceae.) 39343. Seed of sainfoin from Paris. Purchased from Vilmorin-Andrieux and

company. One of nine forage crops little known in this country introduced for the work of the Office of Forage Crop Investigations. Among the others are the serradella, gorse or whin, yellow trefoil, various lupines, Scotch broom and giant spurry.

Passiflora ligularis Juss. (Passifloraceae.) 39360. Seeds of a granadilla from Bogota, Colombia. Presented by Dr. Ancizar, secretary of the Colombian Legation, through Mr. W. E. Safford. "An egg-shaped fruit with parchment-like shell filled with an abundance of sweet juice and many small seeds. Used in tropical America for making sherbets and ices alone or with the addition of lemon juice or spices. Of easy culture in all the warm localities, growing in the form of a vine from trellises and arbors, and desirable not only for its fruit but its beautiful flowers." (Safford.)

Tibouchina stenocarpa (DC.) Cogn. (Melastomaceae.) 39333. Seeds from Lavras, Minas Geraes, Brazil. Presented by Mr. Benjamin H. Hunnicutt, Director, Escola Agricola de Lavras. "Seeds of a wild shrub, commonly called 'Quaresma' or 'Lent,' as it blooms at Lent. It has a beautiful purple flower and the blooming season covers a number of months. It grows well on the poorest, driest grounds we have and blooms during the dry season. I think it has been cultivated in some gardens in Brazil, although I have never seen it. Ornamental only."

NOTES FROM CORRESPONDENTS ABROAD.

China. Tientsin. Dr. Yamei Kin writes November 18 in reply for information concerning peach blossoms, "I had just sent off a letter with some seeds when yours with photos of the peach flowers and inquiries came to hand.

"I will do as you request and take a special look at the orchards of the vicinity when they come into bloom this spring, but I thought it might interest you to know the answers to my questions from the people of my staff and country patients that happen to be on the premises.

"Without saying anything about what your inquiries were (whether the blossoms were typically large and clear pure white, or small and creamy white) I merely took the photos and asked them if they were like the peach flowers that they were accustomed to see in their fruit orchards. Unanimously without the slightest hesitation they pointed to the photo with the intermediate and small flowers, and generally designated voluntarily the middle branch (that with small, relatively inconspicuous flowers) as being the most like, and also remarked that the color was white as a rule though pink ones were not unknown. A few people said

that the right hand branch (with intermediate sized flowers) was more like an apricot than a peach bloom. The photo of the large conspicuous white-flowered type some did not recognize as being a peach flower, though others said that kind was never cultivated in the orchards but only for ornament, as it never bore anything but scrubby little fruit, bitter and leathery. Now my own recollection, though I do not recollect ever having been through a peach orchard here in North China during flowering season, only passing them in the railway train, is that the orchards show white predominatingly, and I distinctly recollect trying to get some pink double flowering peach potted plants last spring and was rather struck with the fact that I could not find anything except clear pure white, as you say, not even the cerise colored ones which I know are abundant in south and west China and in Japan. Yet the ordinary name for pink is peach flower color, and notwithstanding the love of Chinese for color, it is used sparingly, in fact, owing to its being associated with the peach blossom, seems to have an unsavory significance, as I found when I came home one day with a pink satin brocade gown that I had just purchased. My people held up their hands in horror, and exclaimed it was a mercy that I did not intend to wear that here, it would only do for outside countries that did not know about peach flowers, which remarks led me to leave it in America when I came back, though it was a very lovely delicate color and one of my prettiest gowns.

"The reason for this prejudice is owing to its symbolism. Just as the violet is considered in western lands to be the symbol of modest worth, so the plum is that of feminine virtue in China and the peach flower the opposite. Not even the beauty of its color, whether delicate pink or deep cerise, redeems it from this fatal significance. In order that there may be no possible opportunity for a 'peach flower heart' to spring up unawares in some girl of respectable family, it is not considered wise to plant a peach of any kind near the bed room windows of the court yards inhabited by the women, yet peach wands are supposed to be especially useful to beat off all evil spirits, only they must be plucked during a solar eclipse and a hole bored through one end for hanging up by, during a lunar eclipse, which perhaps accounts for their fewness, as during those times in the old days the people were generally busily occupied in beating gongs and firing off crackers to drive away the heavenly dogs which were supposed to be devouring those luminaries, and no one had time to think of making peach wands! The lucky possessor of an efficacious peach wand is supposed to be able to sleep at night with it under his pillow in full confidence that no evil spirits can harm him!

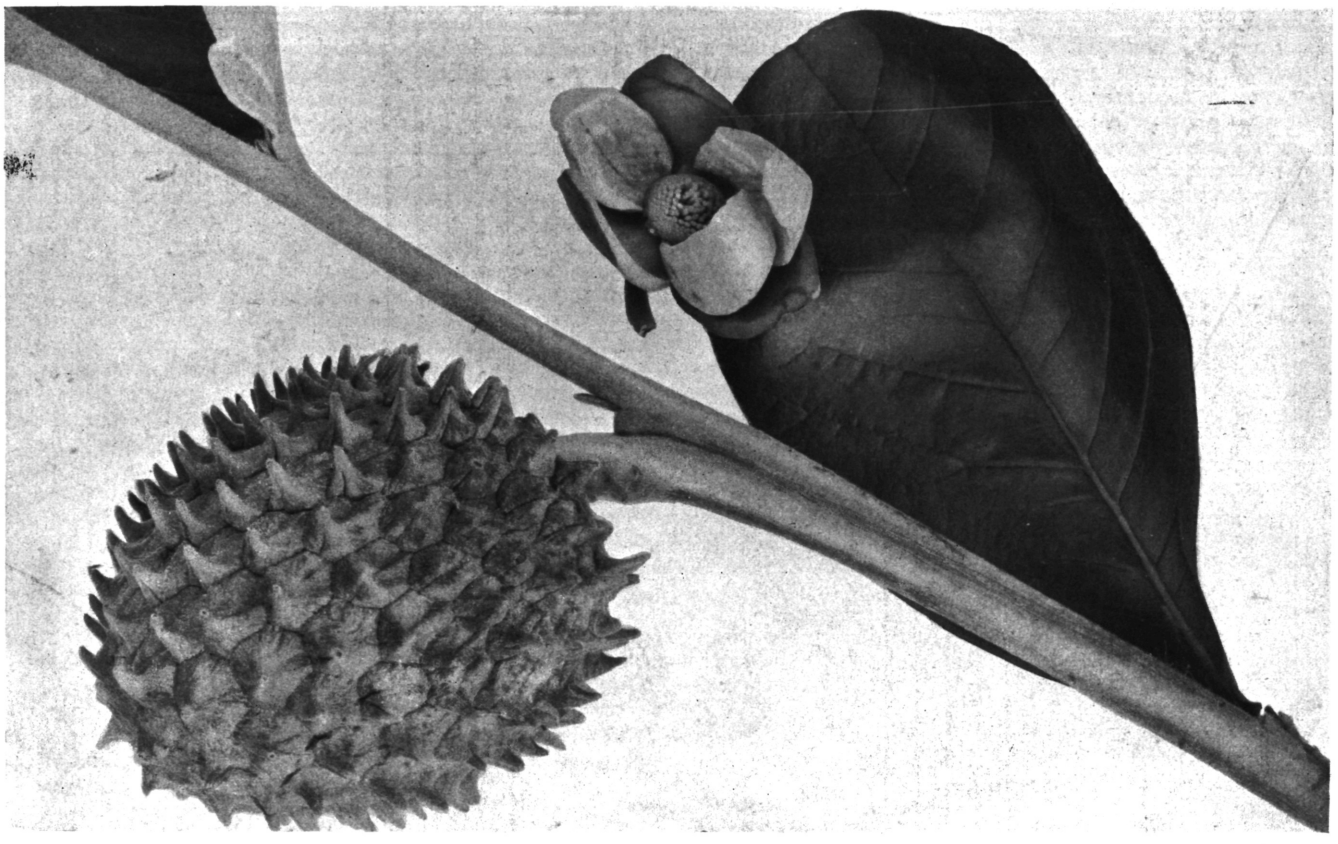
"Taoism from early days has taken the peach as its particular fruit, signifying longevity, much as the apples of Hesperides were symbolic in the Grecian mythology.

"Furthermore peach stones are often made into rosaries which are considered specially fine. There is a collection of tales by one Cornaby to be found in almost every library called 'A String of Peach Stones.' And a host of legends cluster around the tale of Sun, the stone monkey, eating the peaches of immortality stolen from the gardens of the genii, whereby he attains immortality. This theme is seen elaborated in many scenes, that decorate pottery, textiles, and congratulatory scrolls.

"I wish that I were not tied down so much by tedious detail in the medical work, as there is a most interesting book that needs to be translated telling much of the folk lore of the peach interwoven with the plot, which is supposed to be the journey of Hsien tsang to bring back the sacred sutras of Buddha from India. It is said that this is an actual historic occurrence, but this tale is evidently semi-religious and allegorical, as well, combining in itself the characteristics of Bunyan's Pilgrim's Progress, Hans Christian Andersen, and the Arabian Nights, if you can imagine such a mixture, yet giving graphic pictures of Chinese life in various phases that are as true as when the book was written.

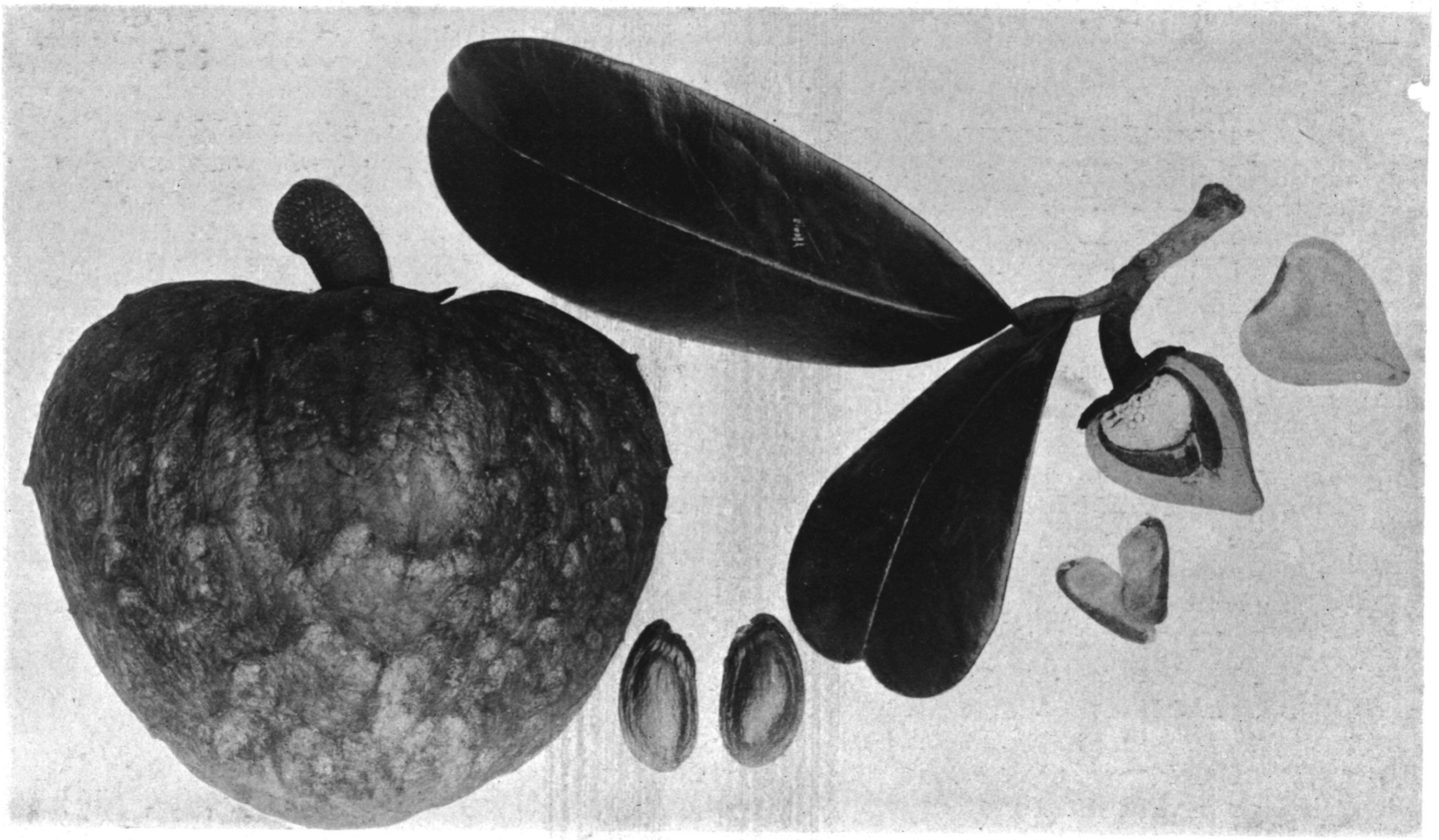
"However this is wandering far from the subject in hand, of the true type of the peaches of the north China group. I will make further inquiries of gardeners and orchardists as I have opportunity, but I think you may feel pretty sure, the fruit-bearing kinds are the white-flowered small kinds, and the large pure white are only for ornament; often they are grown so large and full as to be like small roses. But why here in the north the white should predominate I am puzzled, unless the symbolism has something to do with it, for I recollect that both in west and south China and Japan the large double cerise colored peach blooms were quite common. In Japan the single pink large flowered variety was sold quite as freely as the white, but I do not have any clear recollection of this light pink being doubled in any profusion, and certainly since my residence here in north China I have not seen any double light pink peach flowers, though the generally accepted idea is that the peach flower is pink. Maybe it does not lend itself so readily to the doubling process as the white or cerise varieties, but there is very evidently a prejudice against the pink colored ones, nearly all the distinctly pink flowers being apricots, against which, strange to say, there is no prejudice.

"One of the most charming legends of peach flower lore is that of the 'Peach Blossom Fountain,' an allegory



AN ANNONACEOUS FRUIT FROM THE HIGHLANDS OF BRAZIL.

On the campos or open plains of the high plateau which extends throughout a large section of central eastern Brazil there are numerous species of annonaceous fruits, many of them of dwarf growth. The name araticum, sometimes with the addition of a qualifying word such as *araticum do brejo*, *araticum do campo*, etc., is applied to nearly all of them. The one here shown *Annona dioica*, was found near Lavras at an altitude of about 800 meters. It grows to a height of about four or five feet, with numerous thick, woody stems arising from the ground. Its fruit here shown in an immature stage, eventually becomes about three inches in diameter. The flesh is edible, though not considered by the natives as good as that of one or two other species which occur in the same region. To breeders of tropical and subtropical fruits the Annonaceae is an extremely interesting class of plants, and presents attractive economic possibilities. Photo No. D-1366 by Dorsett, Shamel and Popenoe in Bahia, Brazil, March 12, 1914.



A NEW ANNONACEOUS FRUIT FROM BRAZIL.

This interesting species, identified by Mr. W. E. Safford as *Annona salzmanni*, is known in the vicinity of Bahia, Brazil, where it is found, as *araticum*, a name which is applied indiscriminately to a number of annonaceous fruits. It was described and named from specimens of foliage and flowers collected some years ago, but the fruit had never been seen by botanists and remained unknown until it was found near a small lagoon on the farm of Col. Demetrio Luiz de Souza. at Bahia, by Messrs. Dorsett, Shamel and Popenoe in 1913. Good specimens are frequently larger in size than the one shown in the photograph, and when ripe are light creamy yellow in color. The flesh is milky white, very sweet in flavor, containing numerous seeds. It may prove of value in breeding annonaceous fruits for tropical and subtropical regions, an important field open to plant breeders which has as yet been scarcely touched. Photo No. 15433 by Dorsett and Popenoe at Lavras, Minas, Brazil Jan. 12, 1914.

written by T'ao Yuan Ming between A. D. 365-427, describing how a fisherman got lost one day and penetrating up a river finds himself in a creek bordered with many peach trees full of bloom, at the end of which he comes upon a small mountain in which is a cave which he traverses and enters on a new country where there is every sign of prosperity, every one is courteous to each other, kindliness and contentment prevail, but they wear the garb of the times of the First Emporer some five centuries previous and have been lost to the rest of the country ever since. The fisherman returns after a sojourn with them, and tells his fellow villagers of this wonderful country and stirs up so much interest that finally the governor of the province joins in the search for this wonderful country, but it is all of no avail and at last the fisherman realizes that he will never more see the peach blossom days of his youth with its rosy dreams and ideals that come but once in a lifetime."

Palestine. Zicron Jacob. Mr. Aaron Aaronsohn writes March 2, 1915: "In reply to your letter of Jan. 9, asking for seeds and cuttings of *Prunus ursina* I am sorry to say that at this time it is entirely impossible to think of going up to the Mount Hermon for botanical and agricultural purposes. We are doing practically no work worth mentioning owing to circumstances entirely independent of our good will. Corresponding is practically impossible now and you will excuse us for our long silence."

Italy. Rome. Dr. Gustav Eisen writes March 12, 1915: "I expect to leave here on the steamer Stampalia March 24th. I have prepared a 'Notes on Italian Fruits', with principal references to those in the Roman markets, etc., which I will send you from New York, expecting to finish copying it on the steamer. There are dozens of varieties which I should like to have sent the Department, such as the large Syracusa blood orange, Cerina apple, Posele and Crisomele di Somma, etc. The Limoncella apple is the same as the one you have seen. There are however two varieties, exactly alike in quality, but different in size and time of maturity. One is the Mela Limoncella proper and the other Rosmarina di Napoli. The latter is a trifle larger and does not last quite so long into the winter. That is as far as I can learn at present. I have seen both and that is what I have been told. But as you know, the names of fruits in Italy are somewhat uncertain and those who know are few and far between. So far I have not come across anyone in Rome who could give me the information wanted, and all the literature I have consulted

differs to an alarming extent. The Limoncella proper seems to prefer a very hot climate. The Rosmarina di Napoli hardly extends to Sicily, while the Limoncella is entirely at home in Sicily, and is there one of their very best apples. The name when you speak of the tree is Melo Limoncello, but when you speak of the fruit it is Mela Limoncella, plural, Melo Limoncello. The name of course is derived from the resemblance to a lemon, in size, shape and color. The Limoncella is truncate at the apex. These apples are now abundant in the market and sell at three for four soldi, retail. An even better apple is the Cerina, twice the size, pale waxy yellow, with reddish brown cheek. Crisp, juicy, sweet and subacid. Really one of the best apples I have tasted. It is remarkable on account of its sweetness, like sugar indeed, at the same time subacid. This also is now in the market, and if I can come across some in Naples I will bring you a sample, though the quality at this time is not as good as it was in February, when it was simply splendid. It upset my former opinion as regards the quality of the larger kinds of apples grown in the south. I am sorry that the Harrar fig cuttings did not arrive in prime shape. But they looked sickly when I got them and I could not get any more then. The fig is quite remarkable, sweeter than any fig I have ever tasted, and it should be fine for seedlings. It is not above medium in size. It certainly is not a variety of *Ficus carica* but more likely *F. pseudocarica*. It looks very curious. I saw it first some ten years ago in Sicily. But my friend the proprietor has since died. He was Count Grimaldi, near Syracusa. I wonder if his numerous hybrid grapes, some most remarkable, were ever introduced into the United States?"

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